Claims.

1. The magnesium salt of *S*-omeprazole trihydrate.

2. The magnesium salt of *S*-omeprazole trihydrate according to claim 1, characterized by being highly crystalline.

3. The magnesium salt of *S*-omeprazole trihydrate according to claim 1, characterized by the following major peaks in its X-ray powder diffractogram.

d-value / Å	*Relative Intensity*
2.67	m
2.79	m
3.27	m
3.52	s
3.82	s
3.96	vs
4.14	m
5.2	m
5.6	m
6.7	vs
6.9	s
8.3	w
16.6	vs

4. A process for the preparation of the magnesium salt of *S*-omeprazole trihydrate according to any of claims 1-3 which comprises treating a magnesium salt of *S*-omeprazole of any other form with water.

5. A process for the preparation of the magnesium salt of *S*-omeprazole trihydrate according to any of claims 1-3 which comprises the following steps;

a) mixing a potassium salt of *S*-omeprazole with an organic solvent;

b) converting the potassium salt of *S*-omeprazole into a corresponding magnesium salt of *S*-omeprazole by treating the said potassium salt with a magnesium source;

c) precipitating the magnesium salt of *S*-omeprazole by addition of a non-solvent;

d) isolating the obtained magnesium salt of *S*-omeprazole;

e) treating the obtained magnesium salt of *S*-omeprazole with water; and

f) isolating and drying the magnesium salt of *S*-omeprazole trihydrate thus obtained.

6. A process according to claim 5 wherein said organic solvent used in step a) is methanol.

7. A process according to any of claims 5-6, wherein the said non-solvent used in step c) is acetone.

8. A process according to claim 5 wherein steps a) to e) are replaced by the single step;

i) converting the potassium salt of *S*-omeprazole into a corresponding magnesium salt of *S*-omeprazole by treating said potassium salt with a magnesium source in water.

9. A process according to any of claims 5-8, wherein the said magnesium source used in step b) of claims 5-7 or step i) of claim 8 is magnesium sulfate.

10. A process for the preparation of a potassium salt of *S*-omeprazole to be used in any of claims 5-9, which process comprises the following steps;

a) oxidizing 5-methoxy-2-[[(4-methoxy-3,5-dimethyl-2-pyridinyl)-methyl]thio]-1H-benzimidazole into *S*-omeprazole in an organic solvent;

b) converting the *S*-omeprazole into the corresponding potassium salt of *S*-omeprazole by treating said *S*-omeprazole with a potassium source ;

c) isolating the potassium salt of *S*-omeprazole thus obtained.

11. A process according to claim 10, wherein said organic solvent used in step a) is toluene.

12. A process according to any of claims 10-11, wherein said potassium source used in step b) is methanolic potassium methoxide or methanolic potassium hydroxide.

13. Potassium salt of *S*-omeprazole prepared according to claim 10 characterized by the following peaks in its X-ray powder diffractogram.

d-value/Å	Relative intensity	d-value/ (Å)	Relative intensity
13.6	vs	3.52	m
10.6	vw	3.42	w
7.8	m	3.38	w
6.8	m	3.34	m
6.5	m	3.28	w
6.2	w	3.20	m
6.1	m	3.12	w
5.8	s	3.06	w
5.4	m	3.03	w
5.3	w	2.97	w
5.2	w	2.93	vw
5.0	vw	2.89	w
4.75	m	2.85	m
4.71	w	2.76	w
4.52	w	2.71	vw
4.42	w	2.66	vw
4.32	w	2.58	w
4.27	m	2.57	w
3.98	vw	2.56	w
3.92	w	2.52	vw
3.89	w	2.47	vw
3.87	w	2.45	vw
3.81	w	2.43	vw
3.74	m	2.40	vw
3.60	m	2.38	vw
3.55	m	2.31	vw

$\alpha 1 = 1.54060$ Å

14. A pharmaceutical composition comprising the magnesium salt of *S*-omeprazole trihydrate according to any of claims 1-3 as active ingredient in association with a pharmaceutically acceptable carrier and optionally other therapeutic ingredients.

15. Use of the magnesium salt of *S*-omeprazole trihydrate defined in any of claims 1-3 in the manufacture of a medicament for use in the treatment of a gastric acid related condition.

16. A method of treating a gastric acid related condition which method comprises administering to a subject suffering form said condition a therapeutically effective amount of the magnesium salt of *S*-omeprazole trihydrate defined in any of claims 1-3.